



**Ministry of Environment  
&  
Climate Change Strategy**

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**NAME OF POLICY:** Water Quality Guidelines Policy.

**APPLICATION:** This policy applies to the development and application of water quality guidelines.

**ISSUANCE:** Executive Director, Water Protection and Sustainability Branch, Ministry of Environment and Climate Change Strategy (ENV)


**IMPLEMENTATION:** Staff of ENV

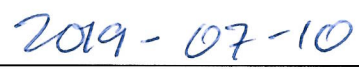
**REFERENCES:**

**RELATED POLICIES:** *Water Sustainability Act* Water Objectives  
Water Quality Objectives Policy  
Science-Based Environmental Benchmarks Technical Guidance

**RELATIONSHIP TO PREVIOUS POLICIES:** Changes made are to clarify and guide the development and application of water quality guidelines. This policy replaces Policies 6.10.03.02 and 6.10.03.02.

**POLICY AMENDMENT:** Any formal request for an amendment to this policy is to be directed in writing to the Executive Director, Water Protection and Sustainability Branch, Ministry of Environment and Climate Change Strategy

  
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Lynn Kriwoken  
Executive Director  
Water Protection and Sustainability Branch  
Ministry of Environment and Climate Change  
Strategy

  
\_\_\_\_\_  
Date

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**EFFECTIVE DATE:** **FILE: 77510-00**  
**AMENDMENT NO:**

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**APPROVED AMENDMENTS:**

Effective date	Briefing Note /Approval	Summary of Changes:

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**EFFECTIVE DATE:**  
**AMENDMENT NO:**

**FILE:77510-00**

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## Table of Contents

1.	POLICY STATEMENT .....	1
2.	DEFINITIONS.....	2
3.	REASONS FOR POLICY .....	2
4.	PROCEDURES.....	2
4.1	Water Quality Guidelines for the Protection of Aquatic Life.....	2
4.2	Water Quality Guidelines for the Protection of Drinking Water Sources ...	2
4.3	Water Quality Guidelines for the Protection of Recreational Uses .....	3
4.4	Water Quality Guidelines for the Protection of Wildlife.....	2
4.5	Water Quality Guidelines for the Protection of Agricultural Water Uses ...	3



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## 1. POLICY STATEMENT

Water quality guidelines (WQGs) are developed by the Ministry of Environment and Climate Change Strategy (ENV) or adopted from other Canadian and international jurisdictions for chemical, physical, and biological attributes that are important in both fresh and marine waters.

WQGs are used to:

- protect aquatic life, wildlife and their habitats;
- protect water values, including: drinking water, public supply, and food processing; agriculture (livestock watering and irrigation); and recreation;
- provide the basis for the evaluation of ambient water quality and environmental impact assessments to inform resource management decisions (e.g., wastewater discharge limits);
- provide the basis for water quality objectives; and
- report to the public on the state of water quality and promote water stewardship.

WQGs for the protection of aquatic life are developed by ENV following approved B.C. protocols (see 4.1). There are no formal protocols for the development of WQGs for the protection of wildlife. Where needed, WQGs for the protection of wildlife will be developed on a case-by-case basis (see 4.2). WQGs for the protection of drinking water sources and recreation are adopted from Health Canada in consultation with the B.C. Ministry of Health (HLTH) (see 4.3 and 4.4, respectively). WQGs for the protection of agricultural water uses are developed following Canadian Council of Ministers of the Environment (CCME) protocols (see 4.5).

Both long-term chronic and short-term acute WQGs may be developed for an attribute. Chronic WQGs assess the risks associated with ongoing exposure in the ambient environment while acute WQGs assess the risks associated with short-term intermittent or transient exposures.

In the absence of site-specific benchmarks, WQGs apply province-wide to protect specific water values. Where warranted, ENV may develop WQGs that take site-specific water chemistry into account. The application of WQGs in water quality management is guided by approved B.C. protocols.

WQGs do not have any direct legal standing and, on their own, are not considered to be legal standards. WQGs may be used as the basis of legally enforceable limits under regulatory tools (e.g., *Environmental Management Act*).

WQGs are approved by the Executive Director, Water Protection & Sustainability Branch. Approved WQGs constitute official ENV policy and must be considered in any decision affecting water quality made within the Ministry. Approved WQGs take precedence over WQGs from other jurisdictions, including the CCME.

For attributes without approved WQGs, WQGs from other jurisdictions (typically the CCME) may be adopted as working WQGs. Chemical, physical, and biological

attributes without approved WQGs or WWQGs will be considered on a case-by-case basis.

## 2. DEFINITIONS

**Ambient** refers to the surrounding environment outside the zone in which water quality may be directly affected by a waste discharge or source of contamination.

**Water quality** is a term used to describe the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a specific use. Water quality includes the water column, the substrate, and the biota present.

A **water quality guideline** (WQG) is a scientifically-derived numerical concentration or narrative statement considered to be protective of water values and designated uses in ambient conditions. **Long-term WQGs** are protective against chronic effects resulting from long-term exposures, while **short-term WQGs** are protective against acute effects resulting from short-term intermittent or transient exposures.

A **working water quality guideline** (WWQG) is a scientifically-derived numerical concentration or narrative statement, considered to be protective of water values and designated uses in ambient conditions, which has not been fully assessed or endorsed by the ENV.

A **water quality objective** is a scientifically-derived numerical concentration or narrative statement considered to be protective of the water values and uses in ambient conditions for a specific waterbody. WQGs provide the basis for water quality objectives.

## 3. REASONS FOR POLICY

- To support the enhanced protection and stewardship of water resources.
- To ensure a consistent approach for the development and application of WQGs.
- To establish water quality conditions which are protective of aquatic ecosystems, water values, and water uses.
- To support and inform decision-making in the natural resource sector with respect to water quality.

## 4. PROCEDURES

### 4.1 Water Quality Guidelines for the Protection of Aquatic Life

WQGs for the protection of aquatic life are developed to protect the most sensitive species, at the most sensitive life stage for indefinite exposures and follow the guidance provided by the ENV document *Derivation of Water Quality Guidelines to Protect Aquatic Life in British Columbia* (2019).

### 4.2 Water Quality Guidelines for the Protection of Wildlife

Unless otherwise indicated, it is assumed that the WQGs for the Protection of Aquatic Life will be sufficiently conservative to protect wildlife as well. If specific WQGs are required for a given substance, they are to be developed following guidance provided by

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the CCME document *Protocols for Deriving Water Quality Guidelines for the Protection of Agricultural Water Uses (Irrigation and Livestock Water)*. If WQGs are required to protect wildlife consumers of aquatic biota, such as fish, shellfish, invertebrates, and plants, they are to be developed following guidance provided in the CCME document *Protocol for the Derivation of Canadian Tissue Residue Guidelines for the Protection of Wildlife that Consume Aquatic Biota*. The use of other WQG development approaches and supporting technical documents will be considered on a case-by-case basis.

**4.3 Water Quality Guidelines for the Protection of Drinking Water Sources**

WQGs for the protection of drinking water sources are adopted directly from Health Canada's *Guidelines for Canadian Drinking Water Quality* in collaboration with the Ministry of Health (HLTH). In situations where a WQG is not available from Health Canada, or circumstances dictate that a B.C.-specific WQG is required, ENV will work collaboratively with HLTH and any other pertinent groups to develop or adopt an appropriate WQG.

**4.4 Water Quality Guidelines for the Protection of Recreational Uses**

In most cases, WQGs for the protection of recreational uses are adopted from Health Canada's *Guidelines for Canadian Recreational Water Quality*. In situations where a WQG is not available from Health Canada, or circumstances dictate that a B.C.-specific WQG is required, ENV will work collaboratively with HLTH and any other pertinent groups to develop or adopt an appropriate WQG.

**4.5 Water Quality Guidelines for the Protection of Agricultural Water Uses**

WQGs for the protection of agricultural water uses are developed following guidance provided by the CCME document *Protocols for Deriving Water Quality Guidelines for the Protection of Agricultural Water Uses (Irrigation and Livestock Water)*.

